

REMARKS

The Applicants have received and reviewed the Office Action mailed March 25, 2004, Paper No. 4. The Applicants originally submitted claims 1-34 in this application. By the present Response and Amendment, the Applicants have amended claims 26-34. Thus, claims 1-34 remain pending in this application. The Applicants have not introduced any new matter.

Initially, the Applicants note that, in the original set of claims 1-34, two different claims have the same claim number (claim 25). The Applicants have amended the second claim 25 by renumbering it claim 26, and have amended the remaining claims thereafter (originally numbered 26-33) by renumbering them claims 27-34.

The Examiner rejected claims 1-3, 6-11, 13-15, 18-26 and 29-34 under 35 U.S.C. §102(b) as being anticipated by Carlson et al. (US Patent No. 5,600,791). The Applicants respectfully traverse the rejection in view of the remarks set forth below.

The Applicants' invention as recited in the claims includes a system and method for determining the root cause of a network problem. Upon receiving an error message within the network, the Applicants' invention associates an error identification number with the error message, and associates a root cause proximity value to the error identification code. According to embodiments of the invention, the actual value of the root cause proximity value is indicative of the cause of the problem. For example, low root cause proximity values indicate errors not easily attributable to an actual hardware, service or software problem. High numbers indicate actual failure of components or functions that can be directly attributable to a specific device or software product. See the Applicants' specification, e.g., from page 11, line 19 to page 12, line 12.

Carlson et al. disclose a method and apparatus for coordinating problem ownership in a clustered computer system environment of devices with different problem ownership schemes. Such coordination is aimed to reduce or avoid redundant and/or conflicting recovery efforts. The coordination effort occurs between the input/output processors

(IOPs) associated with one or more external devices in communication with the computer systems in the cluster of computer systems.

In Carlson et al., each system has a local IOP, which, upon being informed of a device problem, determines if it is the primary IOP or the secondary IOP. If the local IOP determines that it is the primary IOP, it notifies all other IOPs (which then become secondary IOPs) that the problem is local to the primary IOP and corrective action will be taken locally. In this manner, the secondary IOPs will know not to take any corrective action. If the local IOP determines that it is a secondary IOP, it notifies all other IOPs that no corrective action will be taken locally. When the actual primary IOP is determined from among the other IOPs, it notifies the remaining IOPs (which then become secondary IOPs) that corrective action will be taken at the location of the primary IOP. The remaining secondary IOPs then know not to take any corrective action. As described, the coordination among IOPs avoids redundant and/or conflicting corrective efforts.

The Applicants respectfully submit that nothing in the cited art teaches or suggests the applicants' invention as recited in the claims 1-34. Nothing in Carlson et al. suggests an error code, associated with an error message, having associated therewith a root cause proximity value that is indicative of the cause of the error. Carlson et al. disclose only that if a particular hardware component is responsible for a failure, appropriate indication is included in one of the data fields in the IOP error message. See Carlson et al., e.g., at col. 8, lines 30-35. In no way does such action suggest the use of a root cause proximity value, in which the actual value indicates the source and/or nature of the error, e.g., whether it be directly attributable to a specific device or software product, or not easily attributable to an actual hardware, service or software problem.

The Applicants' invention associates a single root cause proximity value with an error identification code, which is associated with a received error message. The cited language in Carlson et al. only discusses the contents of particular data fields in error messages, not an error identification code associated with the error message, and clearly

not a root cause proximity value associated with an error identification code. The Examiner uses the SLID in Carlson et al. to teach or suggest the applicants' error identification code.

However, the SLID is a particular data field in the IOP error message itself; it is not an error identification code associated with the error message. Similarly, the Examiner uses the SRC field in Carlson et al. to teach or suggest the applicants' root cause proximity value. However, the SRC field is yet another data field in the IOP error message itself, not a root cause value associated with an error code associated with the error message. Moreover, unlike the root cause proximity value in the applicants' invention, the SRC field in Carlson et al. does not contain a value that is indicative of the source and/or nature of the problem.

The Applicants' invention indicates the cause of the problem based on the numerical value of the root cause proximity value. Nothing in Carlson et al. teaches or suggests such a root cause proximity value. Carlson et al. only discloses the contents of various error messages. The Applicants' claims 1-34, as currently recited, reflect such distinction between the applicants' invention and the cited art. Thus, the Applicants respectfully submit that the invention as recited in claims 1-34 is not anticipated by or obvious in view of Carlson et al. Accordingly, the Applicants respectfully request that the Examiner withdraw the rejection of claims 1-3, 6-11, 13-15, 18-26 and 29-34 under 35 U.S.C. §102(b) as being anticipated by Carlson et al.

The Examiner indicated that claims 4, 5, 16, 17, 27 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The applicants thank the Examiner for noting the allowable subject matter. However, claims 4 and 5 depend directly from independent claim 1 and thus incorporate all of the features of claim 1. Similarly, claims 16 and 17 depend directly from independent claim 13 and thus incorporate all of the features of claim 1. Also, claims 26 and 27 depend directly from independent claim 24 and thus incorporate all of the features of claim 24. As discussed

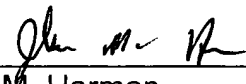
hereinabove, independent claims 1, 13 and 24, as currently recited, are neither taught nor suggested by the cited art. Accordingly, claims 4, 5, 16, 17, 26 and 27 are allowable at least because of their claim dependencies. Moreover, claims 4, 5, 16, 17, 26 and 27 recite other features that, when combined with the subject matter of their respective independent claim, are not shown in the cited art.

The Examiner indicated that claim 12 is allowed. The Applicants thank the Examiner for noting the allowed claim.

CONCLUSION

In view of the amendments submitted herein and the above comments, the Applicants respectfully submit that all grounds of rejection are overcome and that the application has now been placed in full condition for allowance. Accordingly, the Applicants earnestly solicit early and favorable action. Should there be any further questions or reservations, the Examiner is urged to telephone the Applicants' undersigned attorney at (770) 984-2300.

Respectfully submitted,



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